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cDNA Sequence of human IBR

Two alternativ 5' ends:

1 TTGAGGAACAGGCAGACTCCACAGCTCCCGCCAGGAGAA
2 AAGGAAGGAGGGAGAAGGAAGGAGTGAAGGAAGGAGTGAAA

Common Sequence:

AGGGGAGTCTACACCCTGTGGAGCTCAAGATGGTCCTGAGTGGGGCGCTGTGCTTCCGAA 60
TGAAGGACTCGGCATTGAAGGTGCTTTATCTGCATAATAACCAGCTTCTAGCTGGAGGGC 120
TGCATGCAGGGAAGGTCATTAAAGGTGAAGAGATCAGCGTGGTCCCCAATCGGTGGCTGG 180
ATGCCAGCCTGTCCCCCGTCATCCTGGGTGTCCAGGGTGGAAGCCAGTGCCTGTTCATGTG 240
GGGTGGGGCAGGAGCCGACTCTAACACTAGAGCCAGTGAACATCATGGAGCTCTATCTTG 300
GTGCCAAGGAATCCAAGAGCTTCACCTTCTACCGGCGGGACATGGGGCTCACCTCCAGCT 360
TCGAGTCGGCTGCCTACCCGGGCTGGTTCTGTGCACGGTGCCTGAAGCCGATCAGCCTG 420
TCAGACTCACCCAGCTTCCCGAGAATGGTGGCTGGAATGCCCCCATCACAGACTTCTACT 480
TCCAGCAGTGTGACTAGGGCAACGTGCCCCCCCAGAACTCCCTGGGCAGAGCCAGCTCGG 540
GTGAGGGGTGAGTGGAGGAGACCCATGGCGGACAATCACTCTTTCTGCTCTCAGGACCCC 600
CAGGTCTGACTTAGTGGGCACCTGACCACTTTGTCTTCTGGTTCCCAGTTTGCATAAATT 660
CTGAGATTTGGAGCTCAGTCCAGGGTCCTCCCCCACTGGATGGTGCTACTGCTGTGGAAC 720
CTTGTA AAAA ACCATGTGGGGTAAACTGGGAATAACATGAAAAGATTTCTGTGGGGGTGGG 780
GTGGGGGAGTGCTGGGAATCATTCCTGCTTAATGGTAACTGACAAGTGTTACCCTGAGCC 840
CCGCAGGCCAACC CATCCCCAGTTGAGCCTTATAGGGTCAGTAGCTCTCCACATGAAGTC 900
CTCTCACTCACC ACTGTGCAGGAGAGGGAGGTGGTCATAGAGTCAGGGATCTATGGCCCT 960
TGGCCCAGCCCCACCCCTTCCCTTTATCCTGCCACTGTCATATGCTACCTTTCCTATCT 1020
CTTCCCTCATCATCTTGTTGTGGGCATGAGGAGGTGGTGATGTCAGAAGAAATGGTTCGA 1080
GCTCAGAAGATAAAAGATAAGTAGGGTATGCTGATCCTCTTTTAAAAACCCAAGATACAA 1140
TCAAAATCCCAGATGCTGGTCTCTATTCCCATGAAAAAGTGCTCATGACATATTGAGAAG 1200
ACCTACTTACAAAGTGGCATATATTGCAATTTATTTTAAATTAAGATACTATTTATAT 1260
ATTTCTTTATAGAAAAAGTCTGGAAGAGTTTACTTCAATTGTAGCAATGTCAGGGTGGT 1320
GGCAGTATAGGTGATTTTCTTTTAATTCTGTTAATTTATCTGTATTTCTTAATTTTCT 1380
ACAATGAAGATGAATTCCTTGTATAAAAAATAAGAAAAGAAATTAATCTTGAGGTAAGCAG 1440

Fig. 1



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AGCAGACATCATCTCTGATTGTCCTCAGCCTCCCAATTCCCCAGAGTAAATTCAAATTGAA 1500
TCGAGCTCTGCTGCTCTGGTTGGTTGTAGTAGTGATCAGGAAACAGATCTCAGCAAAGCC 1560
ACTGAGGAGGAGGCTGTGCTGAGTTTGTGTGGCTGGAATCTCTGGGTAAGGAACTTAAAG 1620
AACAAAAATCATCTGGTAATTCTTTCTAGAAAGGATCACAGCCCCTGGGATTCCAAGGCA 1680
TTGGATCCAGTCTCTAAGAAGGCTGCTGTACTGGTTGAATTGTGTCCCCCTCAAATTCAC 1740
ATCCTTCTTGGAATCTCAGTCTGTGAGTTTATTTGGAGATAAGGTCTCTGCAGATGTAGT 1800
TAGTTAAGACAAGGTCATGCTGGATGAAGGTAGACCTAAATTCAATATGACTGGTTTCCT 1860
TGTATGAAAAGGAGAGGACACAGAGACAGAGGAGACGCGGGGAAGACTATGTAAAGATGA 1920
AGGCAGAGATCGGAGTTTTGCAGCCACAAGCTAAGAAACACCAAGGATTGTGGCAACCAT 1980
CAGAAGCTTGGAAGAGGCAAAGAAGAATTCTTCCCTAGAGGCTTTAGAGGGATAACGGCT 2040
CTGCTGAAACCTTAATCTCAGACTTCCAGCCTCCTGAACGAAGAAAGAATAAATTTCCGC 2100
TGTTTTAAGCCACCAAGGATAATTGGTTACAGCAGCTCTAGGAACTAATACAGCTGCTA 2160
AAATGATCCCTGTCTCCTCGTGTTTACATTCTGTGTGTGTCCCCCTCCCACAATGTACCAA 2220
AGTTGTCTTTGTGACCCAATAGAATATGGCAGAAGTGATGGCATGCCACTTCCAAGATTA 2280
GGTTATAAAAGACACTGCAGCTTCTACTTGAGCCCTCTCTCTTGCCACCCACCGCCCCC 2340
AATCTATCTTGGCTCACTCGCTCTGGGGGAAGCTAGCTGCCATGCTATGAGCAGGCCTAT 2400
AAAGAGACTTACGTGGTAAAAAATGAAGTCTCCTGCCCACAGCCACATTAGTGAACCTAG 2460
AAGCAGAGACTCTGTGAGATAATCGATGTTTGTGTTTTAAGTTGCTCAGTTTTGGTCTA 2520
ACTTGTTATGCAGCAATAGATAAATAATATGCAGAGAAAGAG (A_n) 2562

Fig. 1 (Continued)



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cDNA Sequence of murine IBR

GGCACGAGGGGAGCCTGCTTTCTACTTAGGTCTCAAATTTTCCAGCCTTGTCTTTGCCTA 60
AAATTTCTGCTGTTTATTTCAAATAGGGTCTACATACTGTGGAGCTCATGATGGTTCT 120
GAGTGGGGCACTATGCTTCCGAATGAAGGATTCAGCCTTGAAGGTACTGTATCTGCACAA 180
TAACCAGCTGCTGGCTGGAGGACTGCACGCAGAGAAGGTCATTAAAGGTGAGGAGATCAG 240
TGTTGTCCCAAATCGGGCACTGGATGCCAGTCTGTCCCCTGTCATCCTGGGCGTTCAAGG 300
AGGAAGCCAGTGCCTATCTTGTGGGACAGAGAAAGGGCCAATTCTGAAACTTGAGCCAGT 360
GAACATCATGGAGCTCTACCTCGGGGCCAAGGAATCAAAGAGCTTCACCTTCTACCGGCG 420
GGATATGGGTCTTACCTCCAGCTTCGAATCCGCTGCCTACCCAGGCTGGTTCCTCTGCAC 480
CTCACCGGAAGCTGACCAGCCTGTCAGGCTCAGATCCCTGAGGACCCCGCCTGGGA 540
TGCTCCCATCACAGACTTCTACTTTCAGCAGTGTGACTAGGGCTGCGTGGTCCCCAAAAC 600
TCCATAAGCAGAGGCAGAGTAGGCAGTGGCGGCTCCTGATAGAGGATAGAGAGACAGAGG 660
AGCTCCACAGTAGGTGGCTTACTCCTCTCCTTCCCTACTGGACTCCCGCTTCTGACCTAA 720
GGCACACAGACACTCTCTTCTCCTGCATCCCAGTGCTGGTAAATCTTCTGGTATTTGGAG 780
CTCAATGTGTAGATTCTTTCAGATTGGATGGTACTACCTCTGGTGTGGAACCCAATAGAA 840
ACCACGTAGGACCAACAAAGAGCAACATAAAAGATTCTTGGGTGAAGAAGAGGTGGGAAC 900
TGTTTCATACATAGTAAGATCTGACACAGTACCTCAGAAGTCCTGCCATTCCTTATGTTCT 960
GGAGAAAGTGGAGGGGGGGTACCAAGACTTCTCTGGCTGGCTGGGCCCTTTCCCTCAA 1020
CCTTTCTGACATCTGCAGCCTCTCTCATTCTTGCCTTCATTCTCTGGCCCTGAACCGAGA 1080
GGGTGATATCAGGATAGCTGACAGAAGATGACCAGGCACACTGTCCTGGTTTGAAACCAG 1140
AGGGGACAATAAAAAACCCTGATTCTGGTCTCTACTCACATAAAAAGAAGCTTGTGAACA 1200
TTAAGTGGGAAGAGATTGCTACTAAATAACATACCTTGTAATTTTCATCTTAATTAAAATA 1260
TACTTCTCTATATTATATATTTTA_(n) 1284

Fig. 2



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Human IBR polypeptide

MVLSGALCFR MKDSALKVLY LHNNQLLAGG LHAGKVIKGE EISVVPNRWL
DASLSPVILG VQGSQCLSC GVGQEPTLTL EPVNIMELYL GAKESKSFTF
YRRDMGLTSS FESAAYPGWF LCTVPEADQP VRLTQLPENG GWNAPITDFY
FQQCD

Fig. 3A

Mouse IBR polypeptide

MVLSGALCFR MKDSALKVLY LHNNQLLAGG LHAEKVIKGE EISVVPNRAL
DASLSPVILG VQGSQCLSC GTEKGPIKL EPVNIMELYL GAKESKSFTF
YRRDMGLTSS FESAAYPGWF LCTSPEADQP VRLTQIPEDP AWDAPITDFY
FQQCD

Fig. 3B



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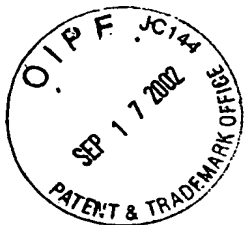
Comparison of Human and Mouse IBR Polypeptide Sequences

mIBR: 1 MVLSGALCFRMKDSALKVLYLHNNQLLAGGLHA EKVIKGEESVVPNRALDASLSPVILG 60
MVLSGALCFRMKDSALKVLYLHNNQLLAGGLHA KVIKGEESVVPNR-LDASLSPVILG IBRcon.
hIBR: 1 MVLSGALCFRMKDSALKVLYLHNNQLLAGGLHAGKVIKGEESVVPNRWLDASLSPVILG 60

mIBR: 61 VQGSQCLSCGTEKGPIKLEPVNIMELYLGAKESKSFTFYRRDMGLTSSFESAAYPGWF 120
VQGSQCLSCG---P+L-LEPVNIMELYLGAKESKSFTFYRRDMGLTSSFESAAYPGWF IBRcon.
hIBR: 61 VQGSQCLSCGVGQEPTLTLEPVNIMELYLGAKESKSFTFYRRDMGLTSSFESAAYPGWF 120

mIBR: 121 LCTSPEADQPVRTQIPEDPAWDAPITDFYFQQCD 155
LCT-PEADQPVRTQ+PE+--W+APITDFYFQQCD IBRcon.
hIBR: 121 LCTVPEADQPVRTQLPENGGWNAPITDFYFQQCD 155

Fig. 4



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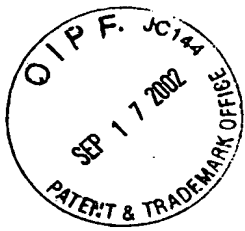
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Comparison of Human IBR and pro-IL-1ra Polypeptide Sequences

hIL-1ra: 38 FRIWDVNQKTFYLRNNQLVAGYLOGPNVNLEEKIDVVP-----IEPHALFLGIHGGKM 90
FR+ D K YL NNQL+AG+L V E+I VVP + P + LG+ GG con.
hIBR : 9 FRMKDSALKVLYLHNNQLLAGGLHAGKVIKGEESVVPNRWLDASLSP--VILGVQGSQ 66
hIL-1ra: 91 CLSCVRSGETKLQLEAVNITDLSNRKQDKRFAFIRSDSGPTTSFESAACPGWFLCTAM 150
CLSC G E L LE VNI +L K+ K F F R D G T+SFESAA PGWFLCT con.
hIBR : 67 CLSC-GVGQEPTLTLEPVNIMELYLGAKESKSFTFYRRDMGLTSSFESAAYPGWFLCTVP 125
hIL-1ra: 151 EADQPVSLTNMPDEG---VMVTKFYFQE 175
EADQPV LT +P+ G +T FYFQ+ con.
hIBR : 126 EADQPVRLTQLPENGGWNAIPITDFYFQQ 153

Fig. 5



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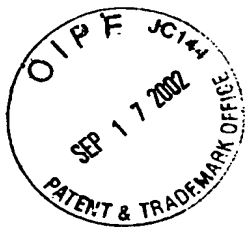
Recombinant IBR Polypeptides

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DASLSPVILG VQGGSQCLSC GVGQEPTLTL EPVNIMELYL GAKESKSFTF
YRRDMGLTSS FESAAYPGWF LCTVPEADQP VRLTQLPENG GWNAPITDFY
FQQCD

VLSGALCFR MKDSALKVLY LHNNQLLAGG LHAGKVIKGE EISVVPNRWL
DASLSPVILG VQGGSQCLSC GVGQEPTLTL EPVNIMELYL GAKESKSFTF
YRRDMGLTSS FESAAYPGWF LCTVPEADQP VRLTQLPENG GWNAPITDFY
FQQCD

GSSVLSGALCFR MKDSALKVLY LHNNQLLAGG LHAGKVIKGE EISVVPNRWL
DASLSPVILG VQGGSQCLSC GVGQEPTLTL EPVNIMELYL GAKESKSFTF
YRRDMGLTSS FESAAYPGWF LCTVPEADQP VRLTQLPENG GWNAPITDFY
FQQCD

Fig. 6



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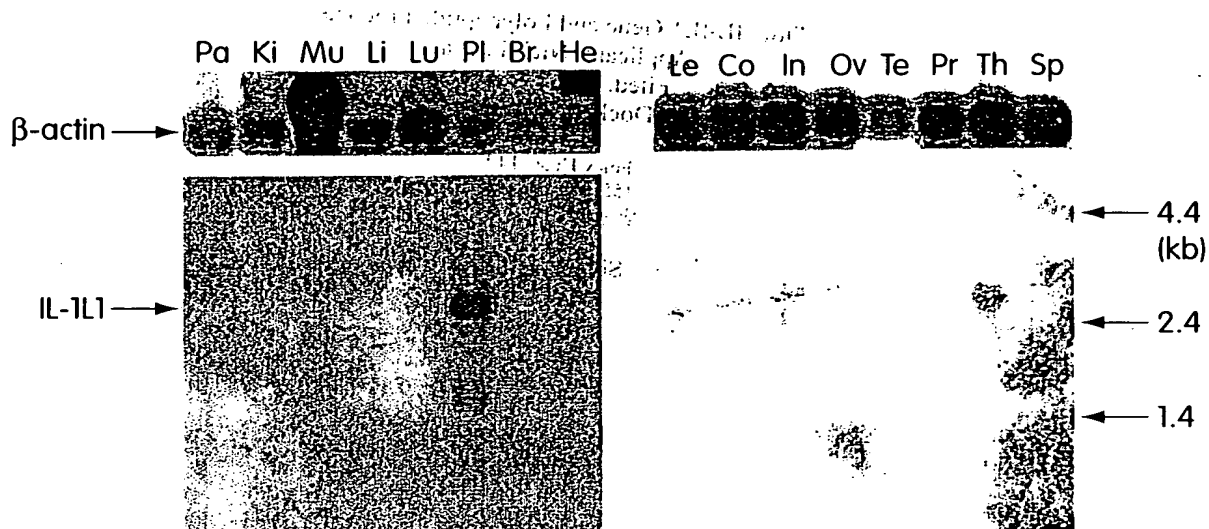


Fig. 7A

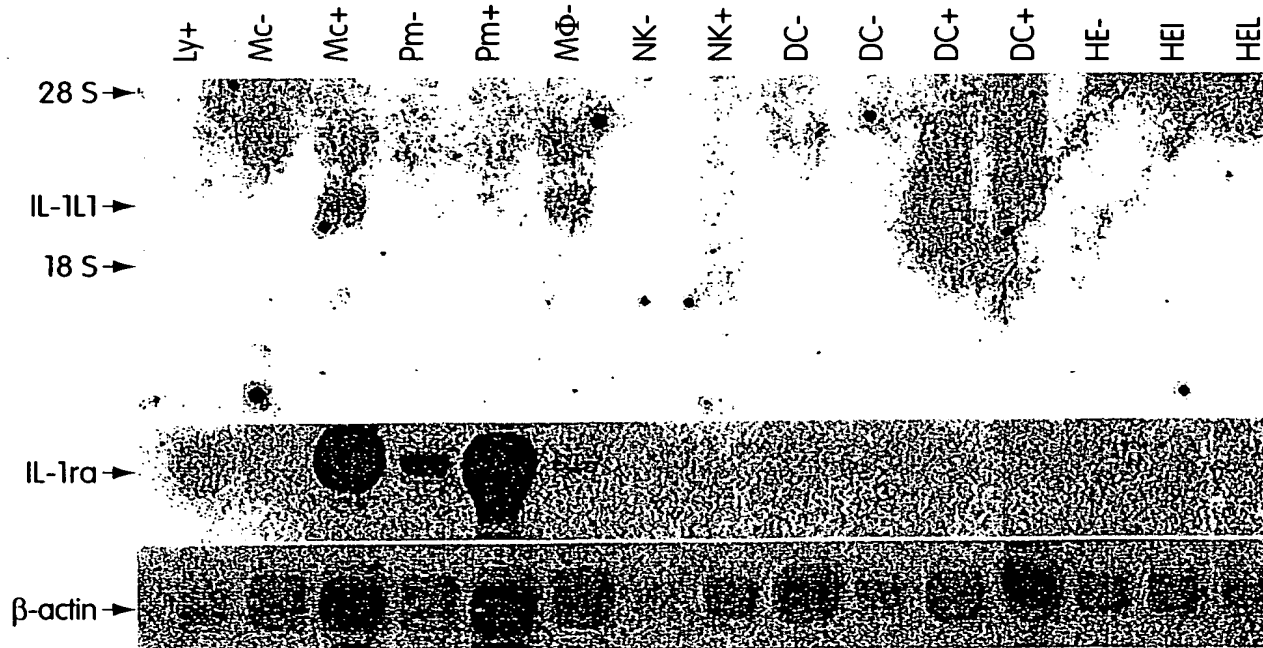
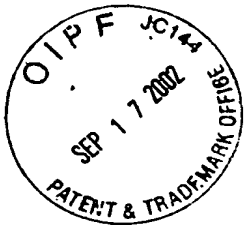


Fig. 7B



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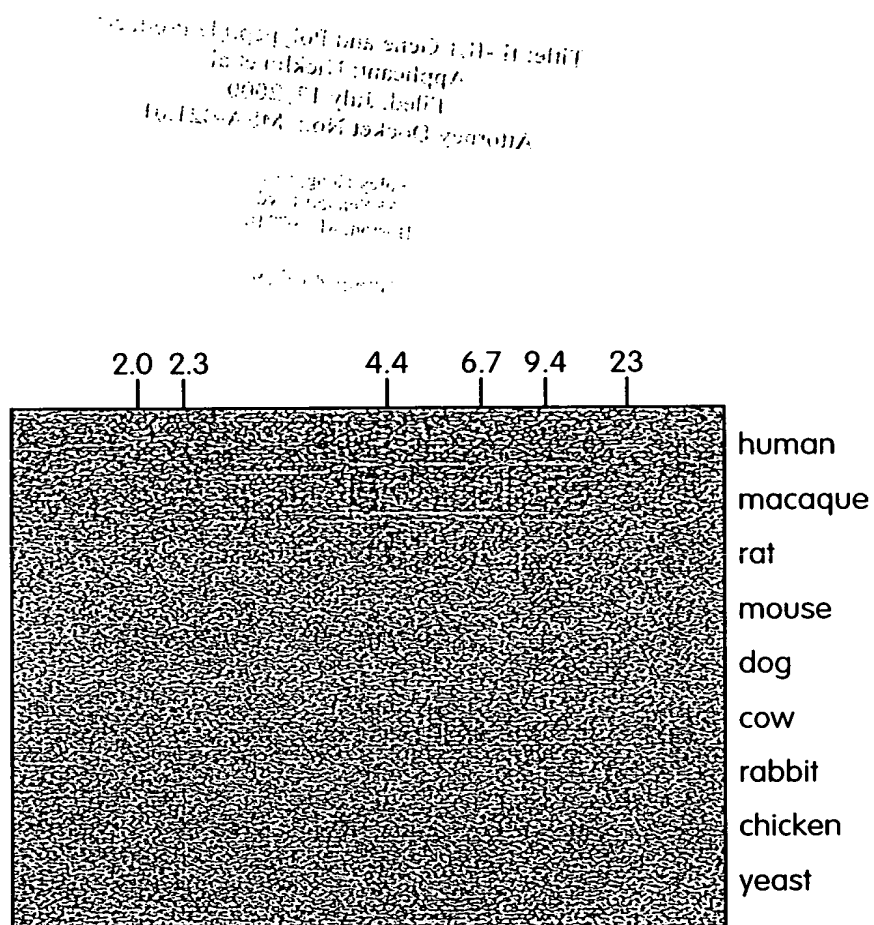
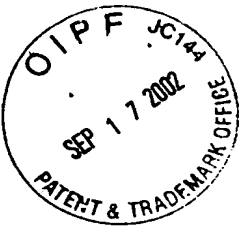


Fig. 8



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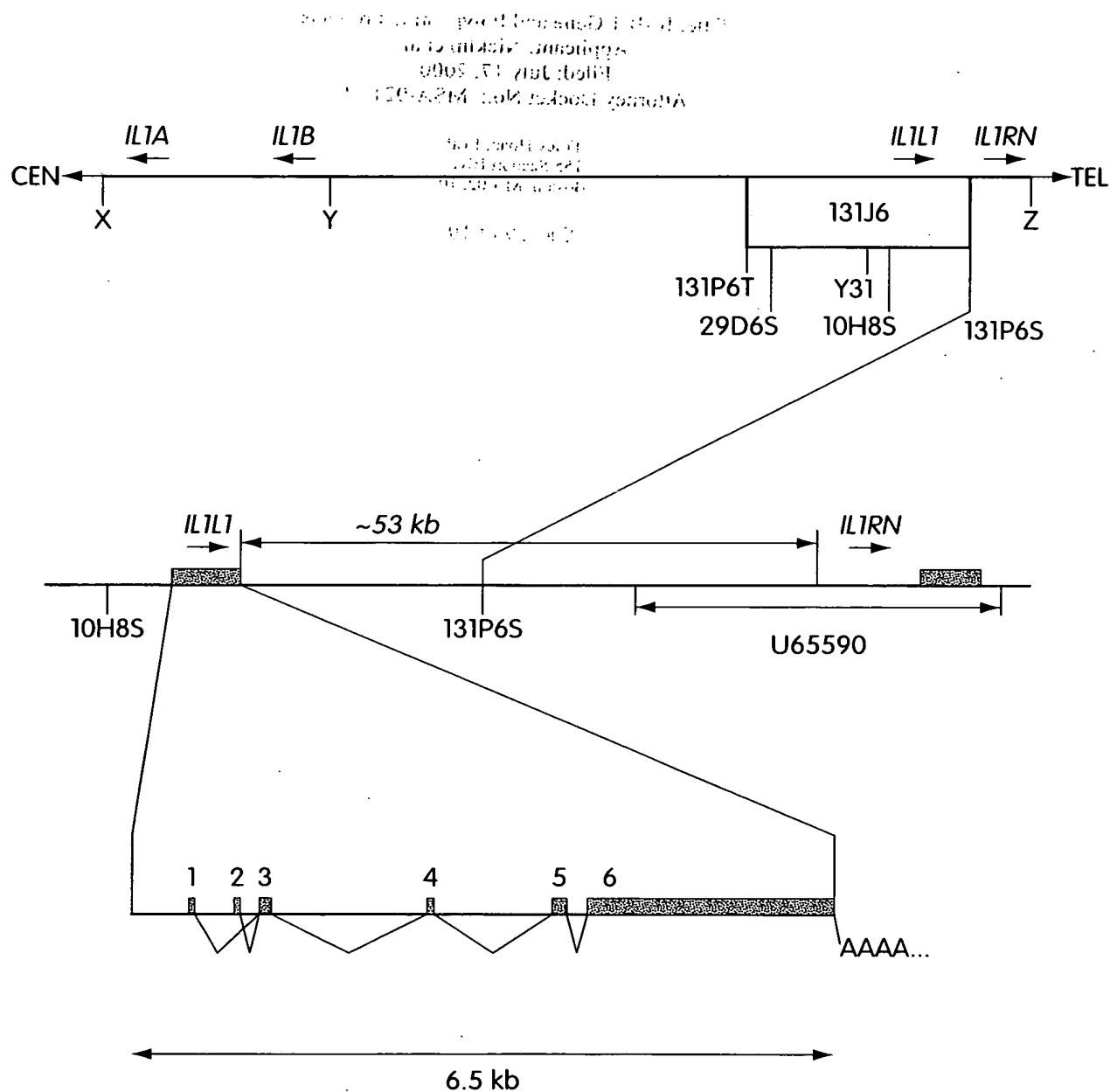


Fig. 9



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cDNA SEQUENCES CONTAINING EXON 1

CTGGCAATGGCAGGCAGGAAAGACAGAGGAAGGAAGGAGGGAGAAGGGAAGGAGTGAAGGAAGGAGTGAAAAA// exon 3

^ ^
-74' M A G R K D R G R K E G E G K E *** ***

cDNA SEQUENCES CONTAINING EXON 2

TTGGAGGAACAGGCAGACTCCACAGCTCCCGCCAGGAGAAAGGAACATTCTGAG// exon 3

^ ^ ^ ^ ^
-54

Fig. 10A

5' flank	start	exon	start seq	cDNA	end seq	end	3' flank
	+ 451	1	CTGGCAATGG	-74' - -1'	AGTGAAAAAG	+ 524	gtaaggaaga
	+ 969	2	TTGGAGGAAC	-54 - -1	ACATTCTGAG	+1022	gtatgctctg
tccaaaatag	+1193	3	GGGAGTCTAC	1 - 56	TGTGCTTCCG	+1248	gtgagtgtat
gatgtttcag	+2631	4	AATGAAGGAC	57 - 142	GTCATTAAAG	+2716	gttggtgatg
tttccacag	+3905	5	GTGAAGAGAT	143 - 270	AACACTAGAG	+4032	gtgagacttg
ctgccggcag	+4234	6	CCAGTGAACA	271 - 2559	AGAGAAAGAG	+6522	aaacaaatgc

Fig. 10B

IL-1L1 MVLSGALCFR⁽²⁾MKDSALKVLYLHNNQLLAGLHAGKVIKG⁽¹⁾EEISVVPNRWLDASLSP
IL-1ra ..RKSSKMQAFR⁽²⁾IWDVNQRTFYLRNNQLVAGYLQGNVNLEE⁽¹⁾KIDVVP-----IEPHA

IL-1L1 VILGVQGSQCLSCG-VGQEPTLTLE⁽³⁾VNIMELYLGAKESKSFTFYRRDM..
IL-1ra LFLGIHGGMCLSCVKSGDETRLQLE⁽³⁾VNITDLSNRKQDKRFAFIRSDS..

Fig. 10C



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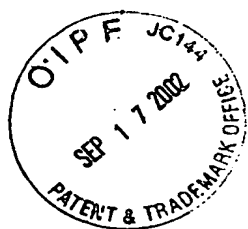
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1 CATGAGCAAA GATGTTAATA CAAAGATGTT TGTGACAACA TGGTTTTCAA TAGCAAAAAA
61 AGAGAGAAAA ATATATAAAA GACAAAPAAC AGTGGATAGG TTTCAATAAA TAATGTTACA
121 GTGATACAGT TAAATACTAT ACAGCTATTG AAGCATGTCA TTATTCATAT TTAGTATGGA
181 AAGATATTTT GCTATTTTGC TACATGAAAA AATGAGGTTG GAAAAAGTAT AGGTTTTGTG
241 AATCTGTTGT ATGAAAGCTG TCTATAGTTA CATGTGTATG TGTGTGGAGG AAAAAGTGTT
301 GTCATTGGTT TTCTGATGAT GCACTCAGAA AAGACAAGTA TTCACATTTT TTCTTGTGGC
361 TGATCTGGAT TTTCAGGTTT TTCTACAATG AACATGTAGG CTGAACATTC CCTAAGCAGG
421 AGAGTCCCAC CTCTAACATC TCCTGTAGGC CTGGCAATGG CAGGCAGGAA AGACAGAGGA
481 AGGAAGGAGG GAGAAGGGAA GGAGTGAAGG AAGGAGTGAA AAAGGTAAGG AAGAAAGGGA
541 ATAGGGGAGG AAGGGAGGAA ATGGGAAGGG AAAGAAGGAA AGGAAGGAAA GAGGGAGGGA
601 AGAAAGGAAG GGAAAAGGGA GGGAGTGAGT GAATGAAAGA TGGAAAGAAG GAAGAAAGGG
661 AGGGAGGCAG GGAGGAAAGA AAGTTGCGCT TCCCTTGAGC TGCCATGGGC ACTGACTCTT
721 AGGGTCTGAA AGCCCCTGAG ATGCAAAAGC CTAGTGCTCA CAAAGAGCTG GAAAGCCTCA
781 AGGAAGTTCT TCAATATTTT TGGAAGGAAA CTGTCTCCAG AAGCTTCCCT CCCCACGACA
841 GATAATGAGC AGCAAGTGCT TCTGGCGACT TAGGGTGATG TGAAATCACG CTGGGAATCC
901 TGCTCCTCCT CAGGTCCTGG CAGTTTCAGG GCCCCTCCCT AGGCCTTACT TAAAAGGCTG
961 AGGCATCCTT GGAGGAACAG GCAGACTCCA CAGCTCCCGC CAGGAGAAAG GAACATTCTG
1021 AGGTATGCTC TGGGGCGCTG GTGGTACCGG AGCTCTCTCC TGACCCCAAGA CCCAGAATCT

Fig. 11



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1081 GCTCCGTGGA GGCTGTTTAC ATGCTGGGGA GCTCGGTGCA GCTGCTTGCT CCCAGACCC
1141 CAGCCAACTC AGCCTCTCTC TCCATGATTT TCTGTTGTTT ATTCCAAAAT AGGGGAGTCT
1201 ACACCCTGTG GAGCTCAAGA TGGTCCTGAG TGGGGCGCTG TGCTTCCGGT GAGTGTATGA
1261 GGCCCTGGTT TGGTGGTGTC CTCCGGAGGA AGTGAGTTCT GGATAGACCC GTTGTCCAGC
1321 TCTGAGCAGG AGGGAGGAAG GGAGGGGCTG CCATTGCAGC TGGGAAATTG TGACCAGCAC
1381 CTCATTGCTC TTAGAGTTTT CCCAGCCTTT TTCAAATAGG GGCAGGACTG GGCAGGCCA
1441 TCTCACAAGG GGTCCCTGAT GCTGAGGGGG ACAAGTGAAC CTCCCAGTCT AGAGCTCCAG
1501 CCAAGTCTAT CCAAGGTGGG AACGGGGGCC AGGATCCCTG CTCAGAGCTC CGCCATTGTC
1561 CCCCATCACA GTGAATGGAT GTAAGCTCAC CCACTCTGTG CCCCTACCTC CCTGCTACTC
1621 TTTGGGGATA ATAATAAAAC AAAAACCATT ACCATCAGCC AGTCTGTCCA CCCACTGGCA
1681 TGTACCAAGC CAGACACTCT GCCGTGTTCT GGGCTTAACA ACAGAGGATG AGAGTGGTCC
1741 TTTCTCTCAG TCTAATAAAG CACTTCCCAC GATGTGTTCT ATGGGACTCG ATTAGAGGAG
1801 TCCCACAGAG GCATCCAGGA GATGCTTTAC ACAGTGGAGC TCTCTGATCA AGTAAATGCA
1861 GGAATTCTG CTTTCTACAT CCTCTCATAA GAGAACCACA GCCCAGCTCA GCATATGAGT
1921 GACTGAGGTT TTCTGAAGTA AGGCAACTTG TTGAATCGTA TTTAGCTATG CATCGACCCA
1981 ATTTTACAC TGCATCCTTT TCCCCATAT AACTTTTGGA GAAACCCACT TTAGGATACA
2041 TCTTCCACCT CATAGGATGC CAGGAAATCA ACTGAGTTCA AAGATGAGAA ACAACTTTGA
2101 AAAGTTAAAT AAAAGAAATT TAAATTTAAA GAAACTCCTC ACTTAGTAAG GAATATATGA
2161 CCAAATAGAA ATACATGTAT CTTGAAGAAT TGAAGAATCA GGCTTTAACG TGGAAGAGGC

Fig. 11 (Continued)



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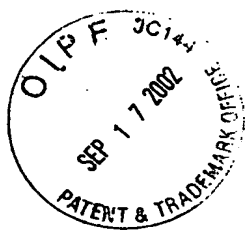
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2221 CTGGATGTTA TCCAAACCCAT CATCTTAGTG TAGCAATGGG GAGGCTCAGG CCCAGAGTGG
2281 GCGAGAGAGT TGTCTCCTGC GACTCAGCAG CATTGGAGGC ATAGATGGGG CAAGAACCTA
2341 GGGCTCTGAC TCACCGTGCA GCTTCTCTTC CAACAGGAGA TGGGTTGGGG CAGAAAAGGT
2401 TGAATAGGGT GAAGGAGCAA ACCACAGACT CCAGTGGGAG ACTGTGGGGT CATCCTCCTT
2461 GTAGGGCATG AGCCCAGCAG GGCTGGGAGA CAAGGCTGTG CTGTTACTTC TGGCACAGTA
2521 GGAAGAAAGA GAGACAAAAT GCCTGAGATC AGGGGGTTCT CTGGATCCAG GGCATGCTGG
2581 AGTGTCCACC CTCCTCCTAA TGTAGTCCTC ACCCCTTCCT GATGTTTCAG AATGAAGGAC
2641 TCGGCATTGA AGGTGCTTTA TCTGCATAAT AACCAGCTTC TAGCTGGAGG GCTGCATGCA
2701 GGAAGGTCA TTAAAGGTTG GTGATGAAAC ATGACCCACT TTCCTTGGTC TCTATACACT
2761 CTCAGGGGAG GGGGCCTGAA GAGGGCTTAG AATAGTCATA CAGATTAGCA TAGGCCTACA
2821 GAGCCCAGGC ATTAGGGCAG CACAAACCAG GCTCTAAGCA AAGGCAAATA AAATACTACA
2881 CCTCTCAGCA AAGTGAAGAC ACACGCTCTG GGGCCACCTG AAGCTTCTGT GCAGAAGTGA
2941 GAATGTTTTT CAAGAGGCTT GTCTTGTCAT TCCCTTACAG GTAGATTTAG GTCAAGCATT
3001 GCATTCCCTG GGAGCCAGTA AGTACCAAGG AGAGAACTAA CGTAGATTCT CTATACCTTT
3061 TTTCCCATAT GGGAGTGGGT TTCTGCCTCT CCACCCTGGG TCCCCTCTGC TCTCTGAAGA
3121 TCCTCAGTCA CTTAGAGTGG AGGGACCCAG AGAACAGGTG GCATTGTTGG ACCTCCTGCT
3181 TGCTCACTCT GCCCCATGCA CTGCAACAGG TCCCTCTCTA AAATAGTTTG CACCTGCCCCA
3241 CCTGGGGCAC CCTTGCTGAG CACAGATGCC AGGTAGATCC TTCAGCTAGG CCATATGTGT
3301 ATGTGTGTGC TTAGTGGTGT ATGTATGTGT GCATGCAGGC ATATATGTGT GAGCATATGT

Fig. 11 (Continued)



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3361 GTGCATGCAT GTATCTGTAT GTAACCATGD ATGTGTGAGT GCAGGTATGT AGGTATGAGC
3421 ATGTGTGTGT ATATGTATAT GTGTGCATGC ATGTATCTGT GCATGTATGT ATCTGATGTA
3481 TGTGGGTGGT GAGGGGATGT ACAGAGAGGA ATGAGACCCT CTTTGTCTCT CAGCAACCTC
3541 ACAGGGTGTA GAAAGTTGTC CAAACAATTC CAAAGGGGGG CTTATTAAGA CAGGGTTCAG
3601 AAAAAGGCCT GAGACCCAAG GGGCATTAAA GGAGGGGGTT GAGTCTATTT TGGGTTGTAG
3661 AGGCTTGAAG ATTTGACCCT GAACTAGAGG GTGGAGTGGA GGTGGTACAA TGTGCTTCCA
3721 TGCCTTGATG TCCACTCTGG GCCAGTGGAC AGGAGAAGCC ATGTCATGAC AGCTGCTGAG
3781 AAGCCTCCCT TCTGCCCAGC CTGGGGGCAG GCCGTCTCAC AGCAGTCCTG TGCCCTAGAG
3841 CCCAGGACAG GGGAAGAAGG AGGGAAAGGC ATCCAGGGCC CTGCATCTGG CCTCTTTCCC
3901 ACAGGTGAAG AGATCAGCGT GTCCCCAAT CGGTGGCTGG ATGCCAGCCT GTCCCCCGTC
3961 ATCCTGGGTG TCCAGGGTGG AAGCCAGTGC CTGTCATGTG GGGTGGGGCA GGAGCCGACT
4021 CTAACACTAG AGGTGAGACT TGGGGCATCC TCACTGGGGA CTCAGCCACA GATGCTGAGC
4081 CTACTGAAGC CGGGCAGCCC ACAGCCCTGG TGCTGTGGGA CACCCTAGCA GGATTCTGTT
4141 GATGGCAGCT TTGCCTCCTC CCTAAGGATC CTGCCCAGCC CTCCCTCTGC CCCTGCTTCT
4201 GCCCTCACCT GACCTCCCCT CCTCTGCCGG CAGCCAGTGA ACATCATGGA GCTCTATCTT
4261 GGTGCCAAGG AATCCAAGAG CTTACCTTC TACCGGCGGG ACATGGGGCT CACCTCCAGC
4321 TTCGAGTCGG CTGCCTACCC GGGCTGGTTC CTGTGCACGG TGCCTGAAGC CGATCAGCCT
4381 GTCAGACTCA CCCAGCTTCC CGAGAATGGT GGCTGGAATG CCCCCATCAC AGACTTCTAC
4441 TTCCAGCAGT GTGACTAGGG CAACGTGCCC CCCAGAACTC CCTGGGCAGA GCCAGCTCGG

Fig. 11 (Continued)



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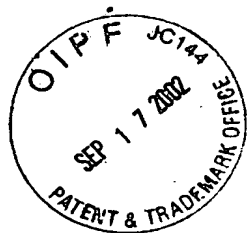
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4561 CACGTCTGAC TTAGTGGGCA CCTGACCACT TTGTCTTCTG GTTCCCAGTT TGGATAAATT
4621 CTGAGATTG GAGCTCAGTC CACGGTCCTC CCCCACTGGA TGGTGCTACT GCTGTGGAAC
4681 CTTGTAAAAA CCATGTGGGG TAAACTGGGA ATAACATGAA AAGATTTCTG TGGGGGTGGG
4741 GTGGGGGAGT GGTGGGAATC ATTCCTGCTT AATGGTAACT GACAAGTGTT ACCCTGAGCC
4801 CCGCAGGCCA ACCCATCCCC AGTTGAGCCT TATAGGGTCA GTAGCTCTCC ACATGAAGTC
4861 CTGTCACTCA CCACTGTGCA GGAGAGGGAG GTGGTCATAG AGTCAGGGAT CTATGGCCCT
4921 TGGCCCAGCC CCACCCCCTT CCCTTTAATC CTGCCACTGT CATATGCTAC CTTTCCTATC
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5281 TGGCAGTATA GGTGATTTTT CTTTTAATTC TGTTAATTTA TCTGTATTTT CTAATTTTTT
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5401 GAGCAGACAT CATCTCTGAT TGTCTCAGC CTCCACTTCC CCAGAGTAAA TTCAAATTGA
5461 ATCGAGCTCT GCTGCTCTGG TTGGTTGTAG TAGTGATCAG GAAACAGATC TCAGCAAAGC
5521 CACTGAGGAG GAGGCTGTGA TGAGTTTGTG TGGCTGGAAT CTCTGGGTAA GGAACTTAAA
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Fig. 11 (Continued)



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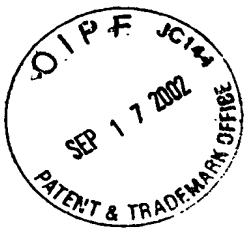
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Patent Classification based on the I.P. Office
to be used in the future
OIPF
to be used in the future

5641 ATTGGATCCA GTCTCTAAGA AGGCTGCTGT ACTGGTTGAA TTGTGTCCCC CTCAAATTCA
5701 CATCCTTCTT GGAATCTCAG TCTGTGAGTT TATTTGGAGA TAAGGTCTCT GCAGATGTAG
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6061 CTGTTTTAAG CCACCAAGGA TAATTGGTTA TGGCAGCTCT AGGAAACTAA TACAGCTGCT
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6361 AAAGAGACTT ATGTGGTAAA AAATGAAGTC TCCTGCCCAC AGCCACATTA GTGAACCTAG
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6481 ACTTGTTATG CAGCAATAGA TAAATAATAT GCAGAGAAAG AGAAACAAAT GCATTTGTTT

Fig. 11 (Continued)



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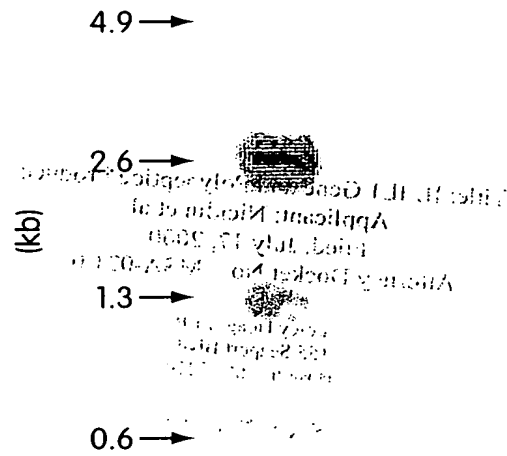


Fig. 12A

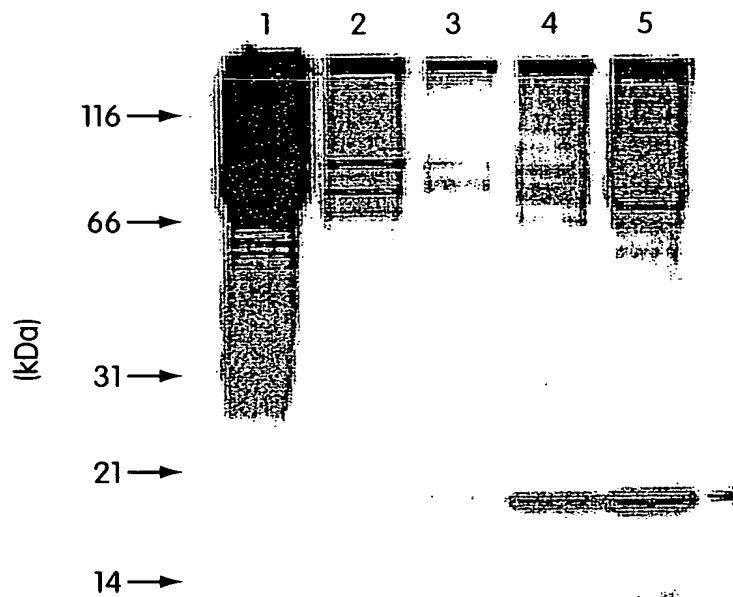


Fig. 12B

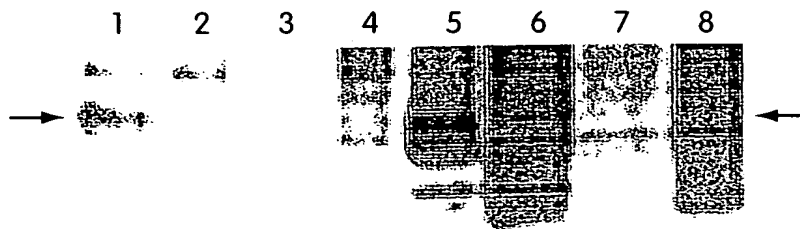


Fig. 12C

